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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* MICHAEL A. BARRESE,  
BRAD L. GRANDE, VERNON GLEN KOLL  
and EUGENE JOSEPH YUREK

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Appeal 2008-3574  
Application 09/992,625  
Technology Center 2600

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Decided: September 18, 2008

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Before KENNETH W. HAIRSTON, MAHSHID D. SAADAT  
and JOHN A. JEFFERY, *Administrative Patent Judges*.

HAIRSTON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from a final rejection of claims 1, 3 to 13, and 18 to 22. We have jurisdiction under 35 U.S.C. § 6(b).

We will sustain the obviousness rejection of claims 18 to 22, and reverse the obviousness rejections of claims 1 and 3 to 13.

Appellants have invented a power supply circuit and a method for powering an electrical device using power from a telephone line (Fig. 1; Spec. 1). The circuit and method use a combiner to supplement the line power with host power when the voltage level of the line power falls below a predetermined level (Spec. 3, 4, 10, and 11).

Claims 1 and 21 are illustrative of the claimed invention, and they read as follows:

1. A power supply circuit for powering an electrical device using power from a telephone line, said circuit comprising:
  - a gyrator having an input coupled to the telephone line and an output;
  - an inductor having and [sic] input and an output;
  - an oscillator having an output;
  - a pulse circuit coupled to said oscillator and coupled between the output of said gyrator and the input of said inductor;
  - a converter coupled between the output of said inductor and the electrical device, said converter producing line power at an output; and
  - a combiner having a input coupled to a host power supply and an output coupled to the output of said converter, said combiner supplementing said line power with host power from said host power supply when the voltage level of said line power falls below a predetermined level.
21. A method for powering an electrical device within a host device coupled to a telephone line, said host device having a host power supply, said method comprising the steps of:
  - supplying line power from power drawn from the telephone line;
  - receiving host power from the host power supply;

supplying said line power to the electrical device; and  
supplementing said line power supplied to the electrical device with  
said host power when the voltage level of said line power falls below a  
predetermined level.

The prior art relied upon by the Examiner in rejecting the claims on  
appeal is:

Johnson	US 4,008,427	Feb. 15, 1977
Weston	US 5,799,069	Aug. 25, 1998
Wakamatsu	US 5,995,381	Nov. 30, 1999
Lui	US 6,624,635 B1	Sep. 23, 2003 (filed Oct. 23, 1999)

The Examiner rejected claims 1, 3 to 6, 8 to 13, and 18 to 22 under  
35 U.S.C. § 103(a) based upon the teachings of Weston, Johnson, and Lui.

The Examiner rejected claim 7 under 35 U.S.C. § 103(a) based upon  
the teachings of Weston, Johnson, Lui, and Wakamatsu.

### ISSUE

Appellants contend that Weston is concerned with adjusting data  
transfer rates based upon varying power levels, and that one of ordinary skill  
in the art would not turn to the pulse width modulated (PWM) teachings of  
Johnson to provide Weston with a regulated output for a wide range of input  
voltages (Br. 7 and 8). Thus, the issue before us is whether the skilled  
artisan would have modified the adjustable data transfer rate teachings of  
Weston with the voltage regulation teachings of Johnson?

### FINDINGS OF FACT

1. As indicated *supra*, Appellants disclosed and claimed invention is directed to a circuit and a method for supplementing telephone line power supplied to an electrical device with host power when the voltage level of the telephone line power falls below a predetermined level.

2. The reference to Weston describes a telephone line powered modem (Title; Fig. 3; col. 1, ll. 15 to 17).

3. Weston recognizes that the power level on the telephone line affects the data transfer rate of the modem (Abstract; col. 2, ll. 32 to 34; col. 5, ll. 9 to 16).

4. Weston detects telephone line power with voltage sensor 62, and microcontroller 60 determines the appropriate clock frequency output by the frequency divider 52 for data transfer by the modem based upon the detected telephone line power (Fig. 3; col. 3, ll. 38 to 47; col. 4, l. 59 to col. 5, l. 20).

5. Weston uses a combiner to combine telephone line power with a host power supply (col. 7, ll. 59 to 62).

6. Johnson describes an electronic power supply that uses pulse width modulated (PWM) voltage regulation to provide a regulated output for a wide range of input voltages (Abstract; col. 1, ll. 26 to 28).

7. Lu describes an uninterruptible power supply that uses a multiplexer 16 to select either an output from AC/DC converter 12 or an output from rechargeable battery 24 to power a load 32 (Fig. 1; Abstract; col. 3, ll. 40 to 48).

8. According to the Examiner (Ans. 6), “Wakamatsu teaches that in PWM circuits, an output shunt regulator may be used to stabilize the output voltage with high precision (Col 8 lines 5-15).”

#### PRINCIPLES OF LAW

In sustaining a multiple reference rejection under 35 U.S.C. § 103(a), the Board may rely on less than the total amount of evidence relied on by the Examiner without designating it as a new ground of rejection. *In re Bush*, 296 F.2d 491, 496 (CCPA 1961); *In re Boyer*, 363 F.2d 455, 458 n.2 (CCPA 1966).

The Examiner’s articulated reasoning in the rejection must possess a rational underpinning to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

#### ANALYSIS

Turning first to the broadest claims on appeal (i.e., 18 and 21), we find that Weston describes a telephone line powered modem coupled to a telephone line 74 (Figure 3) (Finding of Fact 2). The telephone powered modem has a host power supply (i.e., a battery) that can supply power to the modem (col. 7, ll. 59 to 62), and a power supply circuit 64 that converts the voltage drawn from the telephone line to an appropriate voltage needed to power the modem (col. 4, ll. 55 to 58). Weston uses a combiner between the power supply circuit 64 and the host battery to supplement the line power with the battery power when the voltage level of the line power falls below a predetermined level (col. 7, ll. 59 to 62) (Finding of Fact 5). Thus, we find

that Weston teaches or would have suggested to the skilled artisan all of the telephone line powered modem structure set forth in claim 18 and the method steps of claim 21. Accordingly, Appellants' arguments concerning the problem solved by Appellants, teaching away, and lack of motivation to combine the references are not convincing of the nonobviousness of the claimed subject matter set forth in claims 18 and 21 and the claims that depend therefrom (Br. 6 to 9).

With respect to claim 1, we agree with the Appellants' argument (Br. 8 and 9) that the skilled artisan would not have turned to the output voltage regulation teachings of Johnson (Finding of Fact 6) to modify Weston since "Weston merely accepts the current voltage and power levels and adjusts data transfer rates to deal with these levels" (Br. 8) (Findings of Facts 3 and 4). With respect to the teachings of Lui (Finding of Fact 7), we agree with the Appellants' argument (Br. 8) that Lui does not disclose a combiner<sup>1</sup> as set forth in claim 1 on appeal because "[o]ne of two DC power supplies is always powering the system, not a combination of the two."

### CONCLUSION OF LAW

As indicated *supra*, the obviousness of the claimed subject matter set forth in claims 18 to 22 is demonstrated by the teachings of Weston. On the other hand, the Examiner has not demonstrated the obviousness of the claimed subject matter set forth in claims 1 and 3 to 13 based upon the teachings of Weston, Johnson, Lui, and Wakamatsu.

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<sup>1</sup> As indicated *supra*, a combiner is described by Weston (Finding of Fact 5).

ORDER

The obviousness rejections of claims 1 and 3 to 13 are reversed, and the obviousness rejection of claims 18 to 22 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

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